

The Colouring of Ancient Sculptures.

The Driving Force of Expression?

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IF one were to ask ten people what they thought life in antiquity might have looked like, at least half of their answers would probably include white clothing, white architecture and white sculptures. Even though colour in antiquity has been a topic of interest in classical studies for over two decades, the general perception of antiquity has been widely influenced by the misconceptions established during the Renaissance, the application of classical elements in contemporary architecture as well as through modern popular culture, such as motion pictures. Numerous recent exhibitions and publications dealing with ancient polychromy have highlighted this field of classical studies which is still relatively unknown to the general public, and have attempted to shed some light on the colourful past. But what effect does the increased awareness have on our perception? Does it change the way we experience classical art and its meaning?

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Johann Joachim Winckelmann, often referred to as a pioneer of classical art history and ancient polychromy,¹ encountered colouring on ancient sculptures first-hand during his visit to the area of Mount Vesuvius in 1762 and concluded his observations in his *Geschichte der Kunst des Alterthums* (1764)/ (“History of the Art of Antiquity”) two years later as follows:

Color contributes to beauty, but it is not beauty itself, though it generally enhances beauty and its forms. Since white is the color that reflects the most rays of light, and thus is most easily perceived, a beautiful body will be all the more beautiful the whiter it is [...]²

The history of research in
ancient polychromy

I would like to thank Michael Squire for his valuable comments during the discussion of my presentation.

¹Lang 2012, 9.

²Winckelmann 1764, 147–148, trans. Winckelmann 2006, 195.

This extract was utilised as the basis of the discussion on ancient polychromy: around 1800, several scholars objected to the idea of coloured classical sculptures, regarding them as an expression of a rather primitive culture. The Weimarer Kunstfreunde, publishing a revised edition of Winckelmann's work, denied polychromy a classical origin: if it were to be part of the classical culture, it could only be evidence for a lapse of taste in the early stages of its evolution – and hence the book encouraged the perception of a white classical past.³ One of the most fascinating objects Winckelmann studied was the so-called Artemis of Pompeii, discovered in 1760.⁴ Since the sculpture showed obvious traces of colour, Winckelmann ascribed it to the Etruscans, a culture then not considered as refined' as the Greeks'. But when further research and excavations brought more examples of ancient polychromy to light, Winckelmann made several changes to his work, including adding a section "Von bemalten Statuen" / "On coloured statues"⁵ in his revised edition, published posthumously in 1776. Ultimately Winckelmann came to the conclusion that the Artemis of Pompeii could have indeed been part of ancient Greek art, dating the sculpture to the Archaic period.⁶

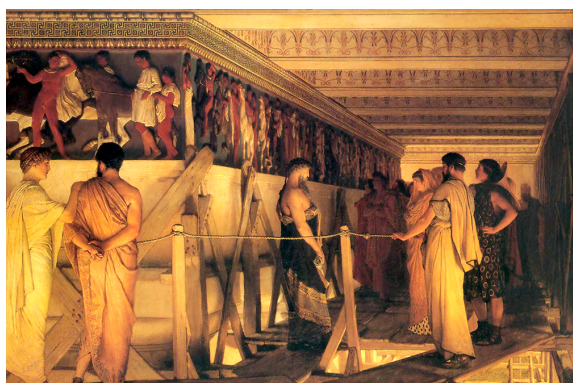


Fig. 1: Lawrence Alma-Tadema, *Phidias Showing the Frieze of the Parthenon to his Friends* (1868). Oil on canvas, 72 cm × 110.50 cm; Birmingham Museum and Art Gallery.

It was not just Winckelmann who focalised ancient polychromy. During the 19th century, work on colouring became increasingly prevalent. In 1815, the French archaeologist Quatremère de Quincy published *Le Jupiter olympien ou l'art de la sculpture antique considéré sous un nouveau point de vue* (1815), the first monograph devoted to the subject of polychromy in Greek sculpture. About 50 years later, Anglo-Dutch painter Lawrence Alma-Tadema represented ancient polychromy in his painting *Phidias Showing the Frieze of the Parthenon to his Friends* (fig. 1), depicting Phidias as a painter (as Pliny states he was, prior to being a sculptor).⁷

In the course of the 19th century, polychromy in ancient art and architecture gained acceptance, even inspiring Gottfried Semper to suggest colouring modern architecture built in the classical style.⁸ In the 20th century, the interest in ancient polychromy decreased until, in the early 21st century, innovative scientific methods started providing a broader insight on coloured sculptures. This development culminated in the popular travelling exhibition "Gods in colour/painted Gods" along with the extensive research carried out by the Copenhagen Polychromy Network, introducing the general public to a progressive approach of experiencing antiquity.⁹ Raising awareness of this area of research, it is essential to understand how colour changes the things we see: does it provide

³Primavesi 2010, 28–39; Primavesi 2011, 17–18.

⁴For a pictures see http://viamus.uni-goettingen.de/fr/sammlung/ab_rundgang/q/10/03

⁵Winckelmann 1776, 587–588.

⁶Nowadays, researchers widely agree on the Artemis of Pompeii being a Roman copy in Archaistic style dated to Augustan times. For more details, see Kunze 2011. For a detailed history of research in ancient polychromy, see Lang 2012.

⁷'Even Phidias was reckoned to have been a painter at first,' Plin. *HN* XXXV 34

⁸Brinkmann 2011, 9; Gage 1994, 11; Lang 2012, 9–11; Primavesi 2011, 18.

⁹Brinkmann 2011, 9–10.

a more detailed and deeper meaning or does it even alter the meaning of the sculpture at all? Does colour in fact simplify the process of understanding sculpture and its meaning?

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Depictions of painters are relatively uncommon. A rare example can be found in an Apulian column-krater displayed in The Metropolitan Museum of Art in New York dates to the mid 4th century BC (fig. 2)

On the obverse, a man wearing a cap and *exomis*, attributes of craftsmen, is seen painting a statue of Heracles, possibly made of white marble. The procedure of painting is illustrated through two scenes: paint and applicators are prepared and heated in a brazier by a naked youth, while the painter applies the colour to the statue. Zeus and Nike watch the artisan from above, while Heracles observes the scene from the right. The column on the left side indicates a setting indoors, possibly a temple. The depiction – in combination with the reverse, showing Athena resting amongst other deities – represents the apotheosis of Heracles, also completed in the world of humans by colouring a sculpture of the god.¹⁰ Literary sources provide the most extensive amount of information on both ancient colouring and painters and are therefore essential for exploring the perception of the ancient art of polychromy. In his revised and posthumously published edition of “History of the Art of Antiquity” Winckelmann further elucidates his research on polychromy by referring to a paragraph of Plato’s *Republic*, dealing with a comparison of the perfect state and the syncretism of the composition of a sculpture and its colouring:

It is as if we were coloring a statue and someone approached and censured us, saying that we did not apply the most beautiful pigments to the most beautiful parts of the image, since the eyes, which are the most beautiful part, have not been painted with purple but with black – we should think it a reasonable justification to reply, ‘Don’t expect us, quaint friend, to paint the eyes so fine that they will not be like eyes at all, nor the other parts. But observe whether by assigning what is proper to each we render the whole beautiful.’¹¹



Fig. 2: Red-figure terracotta column-krater (bowl for mixing wine and water), obverse showing an artist painting a statue of Heracles. Attributed to the Group of Boston 00.348, ca. 360–350 BC, H. 51.50 cm. Credit Line: Rogers Fund, 1950; Accession Number: 50.11.4 www.metmuseum.org/collection/the-collection-online/search/254649.

¹⁰Duigan 2004, 78; Heilbrunn Timeline of Art History 2015.

¹¹Plat. *Rep.* 4.420c–d: [420ξ] ἀδικίαν, κατιδόντες δὲ κρίναι ἂν ὁ πάλαι ζητοῦμεν. νῦν μὲν οὖν, ὡς οἰόμεθα, τὴν εὐδαιμόνα πλάττομεν οὐκ ἀπολαβόντες ὀλίγους ἐν αὐτῇ τοιούτους τινὰς τιθέντες, ἀλλ’ ὅλην: αὐτίκα δὲ τὴν ἐναντίαν σκεψόμεθα. ὥσπερ οὖν ἂν εἰ ἡμᾶς ἀνδριάντα γράφοντας προσελθὼν τις ἐψέγε λέγων ὅτι οὐ τοῖς καλλίστοις τοῦ ζώου τὰ κάλλιστα φάρμακα προστίθεμεν—οἱ γὰρ ὀφθαλμοὶ κάλλιστον ὄν οὐκ ὁστρεῖω ἐναλημμένον εἶεν ἀλλὰ μέλανι—μετρίως ἂν ἐδοκοῦμεν. [420δ] πρὸς αὐτὸν ἀπολογεῖσθαι λέγοντες: ‘ὦ θαυμάσιε, μὴ οἶου δεινὴν ἡμᾶς οὕτω καλοῦς ὀφθαλμοῦς γράφειν, ὥστε μὴδὲ ὀφθαλμοῦς φαίνεσθαι, μὴδ’ αὖ τὰλλα μέρη, ἀλλ’ ἄθροι εἰ τὰ προσήκοντα ἐκάστοις ἀποδιδόντες τὸ ὅλον καλὸν ποιοῦμεν: καὶ δὴ καὶ νῦν μὴ ἀνάγκασε ἡμᾶς τοιαύτην εὐδαιμονίαν τοῖς φύλαξι προσάπτειν, ἢ ἐκείνους πᾶν μᾶλλον’. Trans. Hamilton and Cairns.

According to Plato, colour was an essential element of ancient art which had to harmonise with the given form of a sculpture. In terms of aesthetics, he considers appropriateness fundamental for beauty. The crucial role of colour on sculpture from this ancient author's point of view becomes quite clear: Colouring possesses the ability to change the nature of the sculpture. According to Plato paint is meant to reflect reality or – if we apply it to other areas of communal life – manipulate and lead public opinion by highlighting or falsifying specific aspects. Pliny the Elder makes quite a similar point in his *Natural History*:

It was this Nicias, with reference to whom, Praxiteles, when asked with which of all his works in marble he was the best pleased, made answer, 'Those to which Nicias has set his hand,' so highly did he esteem the colouring of that artist.¹²

The sculptor himself, Praxiteles, states, that a painter completes – even perfects – the sculpture. In what manner the colouring served the sculpture and its meaning cannot be ascertained. However, both the archaeological and literary sources suggest that sculpture demands colouring, enabling the painter to reinforce the significance established by the sculptor.

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Meaning of colour in antiquity

A distinct correlation between colour and meaning has a long tradition in the Mediterranean world. Already in Greek Bronze Age wall painting, colour-coding was used to differentiate human figures by gender – white skin identifies female, dark red-brown denotes male figures. Muskett furthermore suggests that colour-coding of clothing was used to indicate social status and seemingly allows more conclusions to be drawn.¹³

Colour-coding was not only explored in wall-painting, but in various other areas of life: vase-painting, sculpture, literature and even speech. The different approaches can be best analysed by taking a closer look at literary sources. The history of Greek and Roman scholars discussing theories on colour date back to the 5th century BC and include three topics I consider important when discussing the colouring of free standing sculpture: Physiognomy, medical sciences and cosmetics.¹⁴ The analysis of the human body by means of health, especially referring to skin, eyes, bodily fluids and internal organs, was first established by Hippocrates, creating the basic principles for centuries of medical sciences.

Colours were of crucial importance, since a change in colour or a certain hue could hint at a disease and its severity. Cornelius Celsus' writings are particularly pertinent. In the time of Tiberius, he composed eight books on Greek medical theory and distinguished colours for medical diagnosis. When describing the blood of battle wounds, he differentiated for instance between the colour of a punctured heart (the *color pallidissimus*) and those of other wounded organs according to the severity of the injury: "[...] blood is bad when it is [...] in colour either livid or black, or pituitous, or varicoloured [...]"¹⁵

¹²Plin. HN XXXV 133: *hic est nicias, de quo dicebat Praxiteles interrogatus, quae maxime opera sua probaret in marmoribus: "quibus nicias manum admovisset," tantum circumlitioni eius tribuebat.*

¹³Muskett 2004, 68–72. See also for further reading on theories of colour-coding.

¹⁴Gage 1994, 11–27. In Bradley's excellent work *Colour and Meaning in Ancient Rome* (2009), he explores these three topics amongst others in great detail; Bradley 2009, 128–188.

¹⁵Celsus *Med.* V 27.

While analysis of colour was pursued for the medical sciences, we also find several categories of colour described referring to common objects and experiences. Hence, Bradley concludes that “the target audience for this perceptual learning may not necessarily have been restricted to specialists.”¹⁶ Furthermore, in Rome, physiognomy was a popular scientific approach to explain human nature, personality, behaviour and even to predict destiny, again focussing on the colour of hair, eyes and skin.

Attitudes vary widely; for different Roman authors, black hair might symbolise cowardice and greed, straight blond hair stupidity or red hair beastliness, whereas in other places these traits are praised as beautiful.¹⁷ Studies in physiognomy also had a major impact on masks for theatre performances. In ancient drama, masks were not only modelled but also painted according to the character type; indeed the audience must have had some facility in decoding physiognomy and colour, as the intricacies of some theatrical plots suggests.¹⁸

The outer appearance does not only give information on medical conditions, character or destiny, but also on the person’s origin. In Latin literature, colours were also analysed in order to identify non-Romans and predict their behaviour.¹⁹ In conclusion, colouring and colour-coding was a well-known cultural practice, used intentionally to alter and create meaning, which Bradley convincingly summarises as follows:

Make-up, wigs and clothes reworked and reinvented the viewer’s conception of reality, complicating the relationship between the perceptible surface of the body and the nature and character of the person beneath.²⁰

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In order to connect the knowledge obtained from literary sources with archaeological finds, the preserved traces of ancient polychromy need to be analysed in great detail. Empirical studies on colouring have become a focal point in research and educational work at museums, for instance through the investigation of the Copenhagen Polychromy Network. Preliminary reports on sculpture in the Ny Carlsberg Glyptotek in Copenhagen are regularly published, presenting the latest results of both invasive and non-invasive physico-chemical and archaeological research. Since the “Tracking Colour Project” offers a unique insight on preserved colouring, I will focus on the object examined in the 2010 preliminary report, the Sciarra Amazon.²¹ In October 2010, three replicas of the same Amazon type and of about the same date were analysed for traces of paint as a comparative study. The copies are displayed in Copenhagen (Ny Carlsberg Glyptotek Inv. no. 1568), the Museo Histórico Municipal of Écija (Inv. no. 8041-197) and Berlin (Inv. no. Sk. 7). Before applying ancient theories of medicine, physiognomy and artificial colouring to the three analysed copies of the Sciarra Amazons, it is necessary to consider the context. But assuming that certain colours conveyed monolithic meanings is a simplistic approach that does not live up to reality.

Coloured sculptures: the
Sciarra Amazon

¹⁶Bradley 2009, 132.

¹⁷For the varying attitudes see Bradley 2009.

¹⁸Especially Eur. Helen. See further Bradley 2009, 130–137.

¹⁹Bradley 2009, 137–150.

²⁰Bradley 2009, 187.

²¹For further information see www.trackingcolour.com/objects/21.

As Duigan states, “we must understand the function of coloured artefacts, if we are to understand the meaning of colour in each case.”²² Therefore, the connections made between colour and meaning give a general idea; when looking at a specific object, we should take all details into account.²³ The copy in the Ny Carlsberg Glyptotek in Copenhagen is a 2nd century AD Roman copy of a Greek bronze original dating to the mid-5th century BC. The 1.97 m high sculpture is made of Pentelic marble and has had a long acquisition history after being purchased by the Sciarra family in 1830. The Amazon wears a short chiton, revealing both breasts, and ankle straps tied around her feet. She touches her head with her right hand and thereby uncovers a stab wound, from which carved blood drops at the height of her breasts.²⁴ The area of exposed skin was analysed through *in situ* microscopy and shows traces of mostly blue and red, but also of pink and yellow colour. The carved blood drops and the surrounding surface hold a concentration of Egyptian blue, most likely to create a colour similar to blood. Preserved traces of yellow and orange in the hair of the Amazon are highlighted with few blue and red particles. The sclera of the eyeballs, lips and eyebrows exhibit traces of red, whereas the eyeballs were coloured with white, blue and red particles. A bright white colour was achieved by mixing lead white with a little Egyptian blue. On the left foot, traces of blue can be detected on the carvings of the ankle straps as well as on the even surface, indicating an upper strap of a sandal which was not visible to the naked eye.²⁵

The copies of the Sciarra Amazon in Berlin and Écija show both similarities and differences to one in Copenhagen. The Berlin Amazon only exhibits few red colour traces on the garment. In contrast, the Amazon in Écija shows multitudinous traces of colour: The hair was painted red and yellow, where as the eyes exhibit brownish layers with a concentration of red and black, indicating the iris. On the feet, the carved ankle straps are red combined with a few blue particles. This copy also shows how colour was used in restoration works in antiquity: when part of the straps were damaged, the fracture was coloured. Furthermore, the exposed skin shows traces of a transparent red and red-yellowish layers with few blue particles.²⁶ Taking a closer look at the similarities and differences of colour traces, is there perhaps a pattern for colour-coding? How does paint enhance or contradict the meaning of the sculpture?

All three Amazons expose their wound under their right arm, showing carved drops of blood, only visible at short distances. By contrast, the difference between the indicated blood and the skin must have been easy to spot when still coloured. The Copenhagen Amazon shows clusters of Egyptian blue pigments, which were (mixed with other pigments) most likely meant to give a blood-like colour. It is not impossible that the specific shade created could have been important, when taking Celsus’ books on medical theory into account. The *color pallidissimus*, indicating a punctured heart, might have shown the grave state the Amazon was in and emphasised the meaning of the sculpture.

²²Duigan 2004, 78.

²³I will restrict the explanations to the data necessary for my argumentation. Further information can be found in Østergaard 2010 and Sargent and Therkildsen 2010.

²⁴Sargent and Therkildsen 2010, 27–32.

²⁵Sargent and Therkildsen 2010, 33–47.

²⁶Sargent and Therkildsen 2010, 47–48.

The same applies to the colour of the skin which could have shown signs of physical weakness, but cannot completely be deduced from the preserved traces. In contrast to the Copenhagen copy, the other two replicas neither show traces of the same pigments nor the same depth of carvings. As the traces of colour are not as well preserved in Berlin and Écija, only tentative suggestions can be brought forward. However, the two copies exemplify the importance of colouring: without the colour, the wound was even more difficult to spot, as the blood drops were not as deeply carved as those of the Copenhagen copy. Therefore, the cooperation of the painter and the sculptor must have been crucial.²⁷ Similar assumptions can be made concerning the yellow and reddish coloured hair of the Amazon copies. In antiquity, there was a connection made between the bodily appearance and the character of the person: barbarians and slaves were often described as red haired.²⁸

This was also a specific and institutionalised indication of otherness that was evidently part of an Amazon's character and therefore underlined her nature further.²⁹ Ankle straps on both feet are a feature of the Sciarra type. Besides the Sciarra Amazon, the Mattei Amazon exhibits ankle straps, which were interpreted either as spur holders or as a kind of shoe supporting the ankle, worn by Greek riders, dancers and acrobats. The colouring of the Copenhagen Amazon also shows traces appearing to be the thong of a sandal, which was – like the sole of the sandal – not carved by the sculptor. In the eyes of a sculpture painter of the 2nd century AD, ankle straps without soles must have been surprising, since he was not familiar with this kind of shoe nor this kind of iconography. As a result, he did not only paint the straps, but also the sole and the thong, so that it seemed reasonable to him. In case of the Copenhagen Amazon, the painter changed an attribute of an Amazon into an object that was familiar to him in his time.³⁰

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Summary

This comparative study of the three copies of the Sciarra Amazon type exemplifies the great amount of additional information scholars can gain when combining physico-chemical and archaeological research. However, this progress brings up more questions than it answers. The preserved traces of colour in the area of the wound and hair enhance the meaning of the sculpture further. The colour of the stab wound must have highlighted the defeat, just as the colour of the hair must have emphasised the beastly character of the vanquished Amazon. The ancient viewer could easily understand the message, as they were familiar with the explored colour-coding and the coloured details were more obvious, while the modern viewer only understands the sculpture when taking an intensive, closer look.³¹

It also raises awareness for the problems painters faced when colouring a sculpture which derived from a statue created centuries ago in another cultural context and made from another material. The painters clearly struggled with Greek iconography. It was at least partly unknown to them. Overall, these are the questions which remain to be

²⁷ Østergaard 2010, 57. Sargent and Therkildsen 2010, 33.

²⁸ Though certainly so were other women considered beautiful, such as Poppaea.

²⁹ Bradley 2009, 136.

³⁰ Østergaard 2010, 57.

³¹ Hölscher 2009, 61–63, see also discussion by Rolf Sporleder on page 27, in this volume.

answered: when iconography is determined by cultural habits and norms, does it also apply for colour? In what way is the meaning of colour in antiquity different to the perception of colour in the modern world? Was there a certain colour-coding catalogue, according to which the painters coloured the sculptures? To what extent did they introduce their own cultural customs and norms to the colouring? How was colouring used in restoration works?

All in all, the poor preservation of the colouring of most sculptures leaves extensive gaps when attempting to determine the meaning of polychromy. The differences in colour could easily be associated with specific characteristics of ethnicities and mythical figures, emphasising the meaning that the sculpture already embodied and changing it. The potential of colour concerning the meaning of sculptures is considerable; when analysing statues, issues of polychromy should be more explicitly addressed, wherever possible.

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